Reflections on phase two of the IRDR programme

Introduction

Following decisions by ICSU and ISSC in 2008, and with UNISDR completing the group of co-sponsors in 2009, the IRDR programme was set up. Since mid-2010, the International Programme Office is hosted by RADI, an institute of the Chinese Academy of Sciences, thanks to a grant obtained from the Ministry of Science and Technology, obtained through ICSU member organization CAST (funding for IPO in conjunction with IRDR research projects managed by CAST and support for RADI International Cooperation Office).

The purpose of launching IRDR was to generate new research and new alliances with three broad objectives:

- characterize hazards, vulnerability and risk
- understand decision-making in complex and changing risk contexts
- reduce risk and curbing losses through knowledge-based actions

In 2015, the Sendai framework for DRR specifically called for science-informed decision-making and practice. Against this background, a reflection on the repositioning of IRDR is important in order to respond to new opportunities, challenges and expectations. These reflections also occur at a time of (and may influence) the re-composition of the IRDR Science Committee including the appointment of a new IRDR SC chair.

We submit the following preliminary thoughts on the future of the program as pragmatic impulse to kick-start discussions at the upcoming 13th SC meeting. Taking inspiration from the suggestion to review the programme's impact and its integration, as presented at the 12th SC meeting, we have framed a number of questions for the SC to reflect on and discuss as part of its remit of strategic forward planning for the programme. We are sharing some of our initial reactions in response to those questions, and would welcome if during the upcoming meeting SC members added to the list of questions and comments. All reactions to the initial and additional ideas should be cast in such a way that they give rise to decisions on the future directions, activities, and priorities of the programme, with clear indications on priorities for the long, medium and short term.
We are looking forward to a candid discussion on the ambitions and conditions for the second phase of the program.

1. Where do we come from and where did we want to go as IRDR program?

When establishing the IRDR programme, the co-sponsors envisaged a legacy of "enhanced capacity around the world to address hazards and make informed decisions and actions to reduce disaster impacts." This, they believed, would require a shift in focus from response-recovery towards prevention and mitigation strategies. To that end, a novel, integrated approach was needed towards understanding natural, human-induced environmental hazards through a combination of natural, socio-economic, health and engineering sciences including socio-economic analysis, understanding also the role of communication and public response to reduce risk. All of this would need to be done through trans-disciplinary, multi-sectoral alliances aimed at in-depth practical disaster risk reduction research and implementation of effective evidence-based disaster risk policies and practices.

It seems that achieving the integration across boundaries of sciences, hazards, sectors and geographic regions and improving the interactions of science with policy and practice are among the major challenges of the programme.

2. **Looking back over the last 5 years, how far have we advanced, was it in the right direction, are we satisfied with what we have achieved?**

AIRDR has conclusively demonstrated that integrated research in DRR science is not broadly and deeply anchored in the scientific literature, but the study is so far is limited to the Anglophone literature. FORIN has given us conceptual tools to transcend discipline-specific event-based analyses of disasters, but has not yet validated the transformative power of this thinking this through comprehensive case studies. Multi-hazard analysis remains an underdeveloped field of study (proof of concept; indicators). RIA has developed a framework for understanding how people interpret risks and choose actions based on their interpretations, but more can be done in terms of interaction with practitioners. DATA has shown the benefits of cross-sectoral collaborations.
Overall, the potential of working with non-academic stakeholders (whether through the partners in the UN Major Group system or in other constellations) still needs to be exploited (WG's, ICoEs, NC's). Regional dialogue, whether through the network of ICSU Regional Offices or elsewhere, functions only partly (a good example is ICSU ROLAC, where good coordination has been achieved).
A diversity of IRDR bodies has been set up (ICoEs and NC's, regional activities) which contribute, to varying degrees, to the mission of the programme. Many alliances have been forged with a wide range of outside partners (e.g. WMO, UNESCO, UNESCAP, EU), but this has remained somewhat ad hoc, and is largely on a case-by-case basis.

With this rapid and preliminary self-assessment new questions impose themselves: is our goal of integration still appropriate / obtainable? Has it been exceeded? What are the potential successful pathways and what are the limitations to achieving this goal?

In terms of the interaction between science, policy-makers and practice we can distinguish two separate approaches:
With policy-makers, there is potential for influencing advisory structures at global level (UN agencies), there have been instances of influencing decision-making at regional level (data-loss databases in EU and Asia), there are programme bodies called upon to interact at national level (National Committees), and there are projects to explore appropriate ways for interaction between science and decision-making at local level (flagship project Taipei; ICoE initiative Manizales; RIA sub-working group indigenous peoples and Children and Youth and ICoE RIA projects ARC).
No comprehensive assessment of the novelty of these approaches has been made. The potential for explicit and concrete connections between integrated DRR science and the science underlying other intergovernmental process in 2015 have remained as yet somewhat underexploited.
For the domain of interaction with practitioners, another visualization for the (largely not realized) potential for linking science to curbing losses is possible: after an event, DATA's work can inform better data loss data collection; as part of the related learning processes towards prevention, FORIN methodologies can educate on root causes that are underlying the phenomenon observed; as we enhance preparedness, RIA results can offer insights into better risk communication. There is need for closer interaction with non-academic stakeholders to implement such cycles of enhanced knowledge-based disaster risk reduction.

3. **Is the original roadmap (science plan, strategic plan) still relevant, what has changed in the environment?**

The original plan is still relevant with its three main structural elements. The first element is the articulation of the programme through IRDR bodies and IRDR-related activities such as NC's, ICoE's, SC, projects and WG's as well regional initiatives. The second element is the consideration of broad types of risk including both intensive and extensive risks where we acknowledge that the latter is less understood and probably less present in policy debates on DRR and beyond. The third element includes the means and outputs and these include SC meetings, conferences, case studies, capacity building activities, research papers and interventions in the policy-making domain.
We need to recognize, however, that the environment of understanding risk and generating knowledge for risk reduction has also changed – partly due to activities conducted under IRDR, we would like to believe - and there are new demands for greater integration such as those listed below (but probably not limited to those):

- Building alliances and networks with non-academic stakeholders, for example local governments, civil society organization and the private sector for integrating the policy domain actors and practice. This responds to a distinct call under the Sendai framework
- Developing and intensifying work on extensive risk to integrate communities in this area and enhance a way of thinking about disasters and reduction of risk
- Thinking about how IRDR relates to new ICSU-related international initiatives and projects like Future Earth, Urban Health, for synergies and collaboration
- Taking stock of integrated research for a synthesis book/s and enhance capacity building to leave an impact in the higher education domain.

4. **As regards WG projects, what still needs to be completed, what is ready to be promoted for use (case studies, research, education, uptake by stakeholders), for what products opportunities for implementation must be sought ?**

AIRDR needs to be expanded to cover non-English language material. Contacts have been established but decisions and action / leadership by the SC are needed to take this forward from plans to realisation.
DATA is on a pathway towards implementation for "Perils", towards promotion for "human losses" and still needs to launch work on economic / indirect loss. DATA would benefit from playing a more active role in the field of indicators (possible new strong alliances, and integration into the SDG debate).
FORIN is still working towards its review (2.0), has supported some training activities in the past, but it is unclear whether this has led to comprehensive FORIN case studies, or to impact on the ground. It is not clear whether with by completing the drafting of FORIN 2.0 the Working Group sees its tasks as accomplished.
The work-plan of RIA is complex, and is growing organically, especially as regards interactions with non-academic stakeholders. Outreach can be strengthened, however, and examples for use should be highlighted. The request to interact with non-academic stakeholders opens, itself, a new field of research, which could probably also best be addressed under RIA.

5. **Are there other new research questions that reflect changes during the last 5-8 years, and new challenges now better understood, or new formats for the co-design, co-production and co-delivery of science?**

An analysis of SFDRR and of discussions towards the other intergovernmental frameworks show a constant underestimation of the importance of extensive risk and of slow-onset disasters. It might be useful to review the work of the WG's from this angle, and to include actors from other intergovernmental processes as envoys and champions of IRDR thinking on these matters in their respective domains. It seems important also to involve in this context actors operating in and expertise coming from the humanitarian domain.
An emerging theme is globalization - where community systems often bypass national regional systems in seeking innovations and assistance for tackling challenges or moving towards new horizons. International NGOs deal directly with local communities often independently of national governments. Issues of accountability arise. Also the revolutions in communication and social media and the way information is flowing with expertise and relationships from the local to the global needs to be mentioned. Associated with social media is the big-data-revolution and the new possibilities as well as challenges that it poses to understanding risk.

6. **Are the current structures appropriate (composition of SC, WG, constellation of ICoEs, NCs, regional activities, relationship with co-sponsors and other partners, IPO, etc)?**

The form of IRDR bodies should strictly follow function or be designed to function in a way that allows them to deliver the envisaged outputs and outcomes. We have been operating in a way that activities are centered around individual and institutional work and projects; this has allowed us to build on, mobilise and develop strengths and leadership in the field. However, the choreographing of the next steps may require some restructuring of the IRDR activities and bodies and of how they perceive themselves vis-à-vis the programme. For example: how are other (non-academic) communities represented on SC, in the Working Groups, in the work of the IRDR bodies around the globe? What is it that we have done in the past that worked, and what can we learn from experiences IRDR bodies or others have accumulated and are willing to share? Should working groups also move in that direction of having representatives from non-academic fraternities without compromising on quality?

The International Programme Office can play a critical role as an information, communications and advocacy hub. With its main services in the domain of communication, information flows, etc. it must be able to operate in an environment where it is guaranteed that there is:

- free access to (and no restriction on dissemination of) all relevant information;
- free movement of people and funds, so that relevant activities can be supported globally by scientists, staff and resources wherever / whenever that support is needed;
- ease in the acquisition and redistribution of funds collected from outside the main donor institution;
- freedom of choice for a broad synthesis of knowledge, without restrictions on the kind and provenance of input and contributors.

It is necessary to reflect on whether there are more core elements in the IPO's service functions, and whether the constellations and structures in place currently are the best possible ones to move in the direction that we envisage here.